

# UETN Local Content and Service Report to the Community for 2018



Utah Education and Telehealth Network



### UEN-TV

TV for Thinkers: education programs for lifelong learners of all ages on channel 9.1



### MHz

Global news, mysteries and more on channel 9.2



### FNX

Native American and Indigenous entertainment and news on channel 9.3



### NHK World-Japan

English-language news and lifestyle programming from Japan on channel 9.4



# UETN Local Content and Service Report to the Community for 2018

UETN filmed the *SciTech Now* episode “Earth Connection Camp,” featuring an innovative program for indigenous children that combines traditional culture with science activities. Here, participants perform a buoyancy experiment. [View the episode online.](#)



## FRIENDS,

On behalf of our Governing Board, advisors and employees, I am pleased to present this *Annual Report to the Community* celebrating our accomplishments for 2018. We hope these pages and accompanying media at UEN.org will help you learn more about our services that support education and healthcare across the state. KUEN, known locally as the Utah Education and Telehealth Network (UETN), is a statewide agency and public media broadcaster dedicated to providing equitable access to a robust broadcast and broadband network, tools, resources, people, programs and experiences that enrich the lives of all Utahns.

It is our privilege to partner with community members like you to benefit people across our state. As we reflect on accomplishments of 2018, we also look forward to expanding our services and engagement with you, the residents of Utah, in the years ahead.

As always, we appreciate and welcome your feedback. Thanks for your continued interest and support of UETN.

Sincerely,

**Laura Hunter**

Chief Operating Officer, UETN  
Station Manager, KUEN

# 2018 Highlights

## WE CONNECT PEOPLE AND TECHNOLOGIES

Through ongoing collaboration with community partners, UETN has become one of the nation's premiere networks for education and healthcare. Our network, programs and projects, resources and tools, commitment to sustainability and professional learning experiences connect people and technologies to improve education and healthcare in Utah.



Utah students and job seekers visited UETN's UtahFutures career planning portal more than 3 million times in 2018.

JAN

- UETN expands reach with support of Utah Legislature.
- [UtahFutures Impact Evaluation](#) published, shows 89% of users gain needed career advice.
- CPB announces UETN as an *American Graduate: Getting to Work* station.
- *EDScoop* highlights Utah's Open Educational Resources (OER) collection, hosted in eMedia.
- Community survey for carriage of NHK World-Japan begins.
- UETN selects Blackboard Ally to make online courses ADA accessible across Utah System of Higher Education.
- UETN co-sponsors the Utah Coalition for Educational Technology (UCET) statewide conference for educators.

FEB

MAR

APR

MAY

JUN

- *UtahFutures American Graduate* begins production of [videos](#) featuring students from Utah System of Technical Colleges.
- ["Vision of Virtue,"](#) one of UETN's many original productions for *Art Connection*, airs nationally.
- UEN.org spotlights curriculum related to Martha Hughes Cannon statue installation in US Capitol.
- UETN expands reach of Loveland Living Planet Aquarium video series via broadcast and eMedia.
- The UETN Technical Summit convenes leaders in public education, postsecondary education, healthcare and industry.
- *UtahFutures Hour* airs each weeknight.

JUL

AUG

SEP

OCT

NOV

DEC

- UETN and the Friday Institute host *Leading Schools Summit* for principals as part of the Leadership in Blended and Digital Learning Program.
- *UtahFutures American Graduate* celebrates Utah's Year of Technical Education with broadcast and events statewide.
- UETN launches [Homeroom](#), a new bi-monthly podcast for educators.
- UETN and partner stations begin converting Utah's 500+ translators for system-wide spectrum repack project.
- Media team produces segment on POWDER-RENEW 5G wireless networking project for [SciTech Now](#).
- UETN adds 18 new Interactive Video Conferencing sites in area schools.
- UETN hosts regional Telehealth Conference in Salt Lake City.
- [eMedia](#) releases new video collection of 20,000 assets and new website capabilities.
- Utah Canvas Summit, co-hosted by UETN, helps schools implement new LMS for learning.
- Statewide broadcast of NHK World-Japan on Channel 9.4 launches.
- *UtahFutures American Graduate* brings career education resources to rural communities with the *Roadtrip Nation Roadshow*.
- Bright by Text service begins featuring Preschool Pioneer for parents and caregivers nationwide.

# We administer a secure, advanced and stable network.

## SPECTRUM REPACK PROJECT UNDERWAY

UETN's engineering team got off to a solid start with translator conversions in one of the first system-wide repack efforts in the United States. UETN's television signal is broadcast from a central transmitter located northwest of Salt Lake City and carried daisy-chain fashion through the state by a series of broadcast translators. Although the channel was not reassigned through the FCC repack of television broadcast spectrum, UETN joined with other public and commercial stations that were repacked to consolidate engineering efforts and begin converting Utah's 500+ translators. With Utah's mountainous terrain, this Three Musketeers all-for-one approach means our engineers have made steady progress while reducing wear and tear on remote roads, saving time and conserving resources. UETN's extensive [system of translators](#) reaches all 29 counties in Utah. The project will continue in 2019.

### Breaking New Ground with Broadband

To bring high-speed Internet to communities throughout Utah, UETN and partners cut trenches to carry fiberoptic cable through more than three miles of solid rock in Daggett County. The project links a medical clinic and schools in the rural towns of Manila and Dutch John to UETN's robust broadband network, increasing access to much-needed services.



During his August 2018 visit, FCC Chair Ajit Pai commended UETN, saying our services "enabled students across rural Utah to have richer educational opportunities," particularly Lake Powell students, "for whom instruction via UETN's videoconferencing service was essential." Here, Pai meets with Southeast Utah area leaders and UETN staff in a distance learning classroom where students work toward concurrent high school and post-secondary course credits.

### Growing public media mission through Next-Gen TV

UETN joined with 26 other stations in the U.S. to explore the next generation of television broadcasting called ATSC 3.0. The new standard uses Internet Protocol (IP) to deliver rich audio and video signals and data streams. While still in the research phase, the new format has promising benefits for education, public safety, mobile devices and interactivity while viewing. Since innovation is one of our core values, UETN will continue to research the new technology and ways to benefit Utahns.

500+ broadcast translators to reach 935,810 Utah households

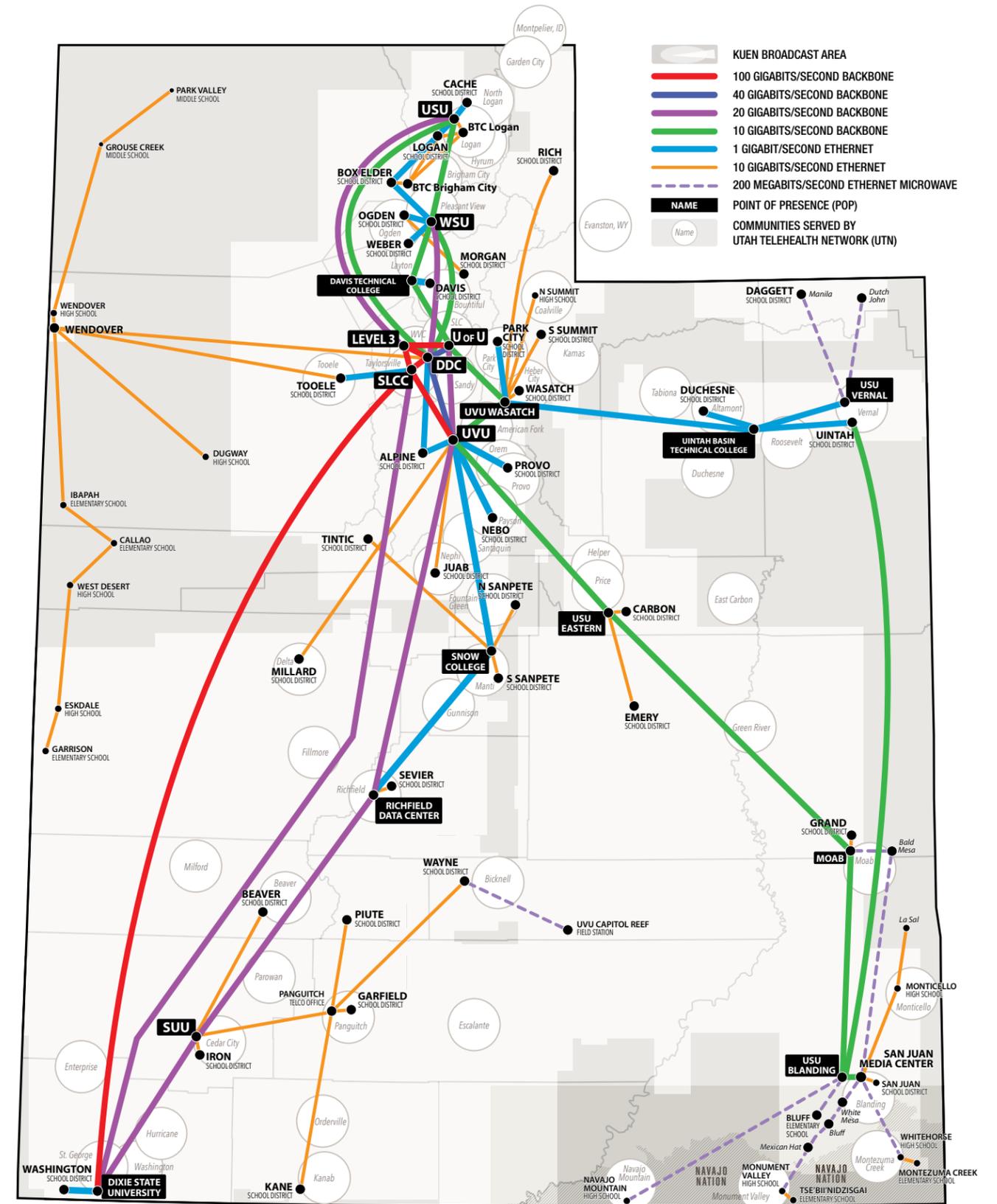


#### CONNECTING

192,202 Postsecondary students

70+ hospitals, community health centers, clinics, local health departments and dialysis centers

135 public libraries and branches



Broadcasting to communities throughout the state and connecting over 1,700 end points, the UETN-managed network provides critical infrastructure to rural and urban areas. In 2018, the network upgraded 25 sites to higher capacity internet circuits and increased service to 652,348 K-12 students at 1,113 schools. [See dynamic near-live map of UEN backbone.](#)

# We extend programs and projects to benefit our community.

## ROADSHOW TOUR ENGAGES RURAL COMMUNITIES

*UtahFutures Hour* returned better than ever in the summer, pairing episodes of the inspiring *Roadtrip Nation* with the instructive *Workplace Essential Skills* for more than 53 hours of career education programming aired during prime time. In November, UETN extended the program with *The UtahFutures American Graduate Roadtrip Nation Roadshow*. Hosted in partnership with the Utah State Library Division at several locations including rural libraries, the *Roadshow* featured a screening of the station's new *American Graduate* videos and a *Roadtrip Nation* episode followed by discussion of local resources for finding right-fit occupations. Participants reported the events helped raise awareness of free, reliable resources for education and career planning and that UETN provided a valuable service with the events.

### Getting to Work with American Graduate

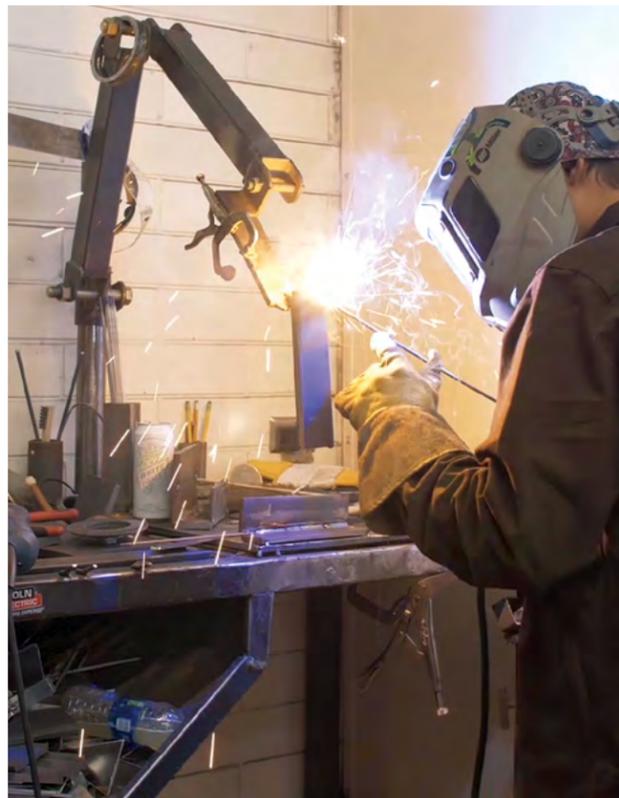
Through the *UtahFutures American Graduate* project, UETN produced and widely distributed [17 videos](#) to illustrate the value of technical education and local resources for career planning. Part of the Corporation for Public Broadcasting's *American Graduate: Getting to Work* initiative, the project also supported Year of Technical Education activities held throughout the state.

### Expanding UETN Programming with New Channel

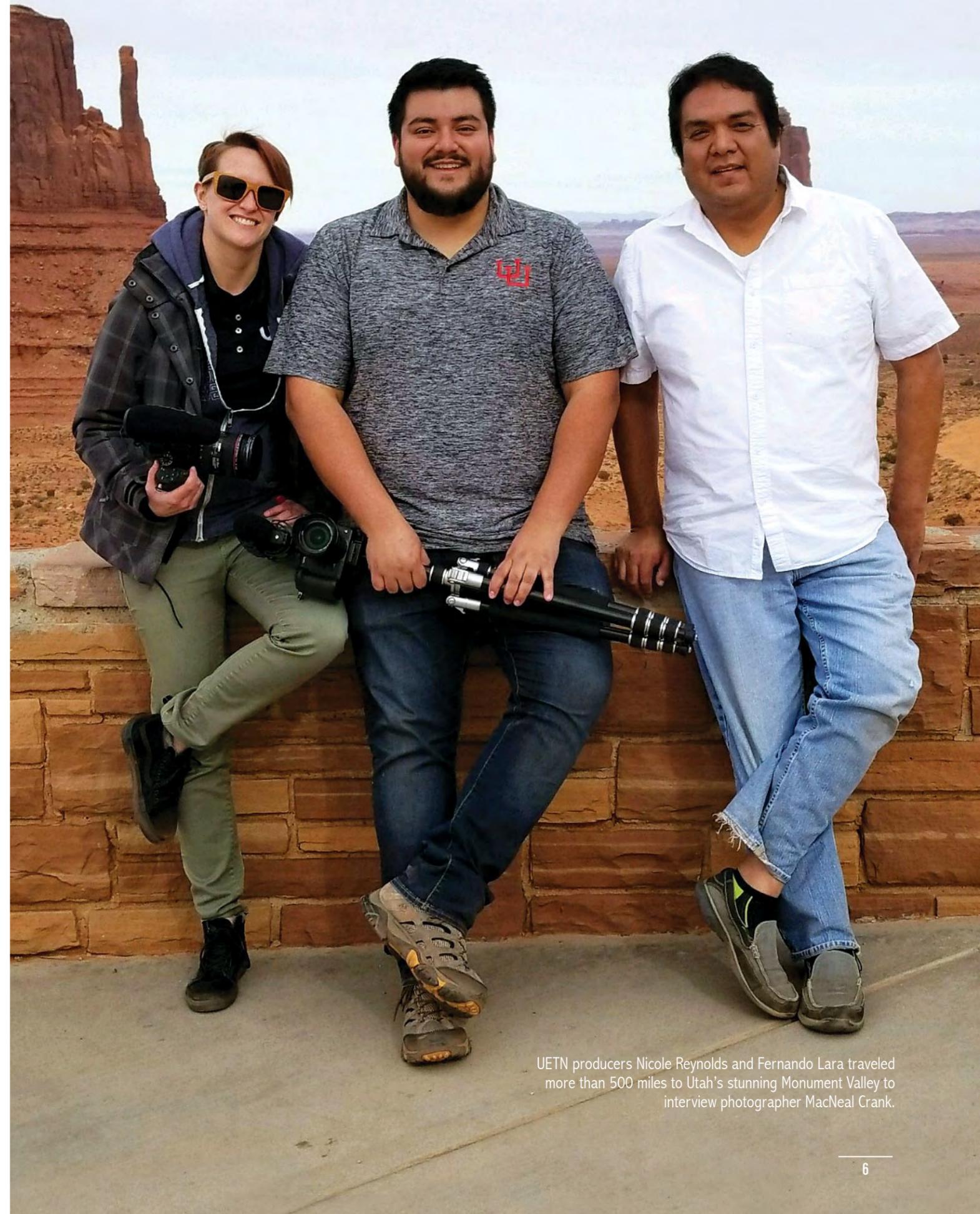
In response to community input, NHK World-Japan TV joined UETN's broadcast lineup. Now airing statewide on channel 9.4, the English-language Japanese news service complements other programming on UEN-TV (channel 9.1), MHz Worldview (channel 9.2) and FNX (channel 9.3).

### Spotlighting Utah Innovations with Original Productions

UETN's original segments for the national programs *Art Connection* and *SciTech Now* shine light on Utah's innovators. Productions for 2018 featured [a self-taught Navajo photographer and professional chef who captures stunning landscapes](#), [an experimental 5G wireless network](#), [a play about a medieval mystic which united a community](#), and [more](#).



New *American Graduate* videos from UETN present stories of Utahns whose diverse pathways to meaningful employment have included Career and Technical Education.



UETN producers Nicole Reynolds and Fernando Lara traveled more than 500 miles to Utah's stunning Monument Valley to interview photographer MacNeal Crank.

# We curate and support high quality resources and tools.

## UETN HELPS UTAHNS PREPARE FOR SUCCESS

UETN is helping more Utahns make well-informed decisions about college and career with [UtahFutures.org](https://utahfutures.org). As managing partner for the college and career planning web portal, UETN provides world-class tools for youth and adults to explore careers, find certificate and degree programs, learn about scholarships, identify Utah's high-need career paths, plan finances, create resumes and cover letters, and more. According to Utah educator Teresa Millard, "UtahFutures is an excellent resource to help students in high school and beyond make well-informed career choices. There's nothing as compact and inclusive as UtahFutures."

### Bridging Distance with Technology

UETN's [Interactive Video Conferencing \(IVC\)](#) and Web-Based Conferencing services eliminate geographical barriers with high definition connectivity, empowering learners to access educational opportunities and healthcare providers to engage patients remotely. In 2018, UETN added 18 new sites to the IVC system and expanded support for the rapidly growing desktop-based distance learning service. UETN hosts over 800 education courses or meetings each day on this system, a particular benefit for Utah's rural schools and healthcare providers.

### Providing a More Inclusive Learning Environment

College courses delivered via Utah's statewide learning management system, Canvas, are now more inclusive. Working with Utah's higher education institutions, UETN has made online and hybrid courses more accessible with a tool called Ally that translates content into alternative formats including Braille readers and audio files, supporting instructors as they improve accessibility for their students.

### Preparing Young Learners for Success in School

[Preschool Pioneer](#), the online library for helping young children build early literacy, numeracy and social-emotional skills, is newly featured in Bright by Text, a partner service that delivers tips to subscribers via text message. Now available in 105 languages, Preschool Pioneer includes tips and resources for parents and caregivers along with ad-free educational content for children PreK-Grade 2 to help them prepare for school and beyond.

### Supporting Collaboration with eMedia

As noted by the national publication *Ed Scoop*, UETN's [eMedia digital repository](#) gives educators and students free access to more than 20,000 downloadable e-texts, videos, audio files and images. New features added in 2018 now support collaboration and resource sharing among teachers and students. New content includes videos from the Loveland Living Planet Aquarium, Utah's Hogle Zoo and the Utah Museum of Natural History.



UtahFutures **388%** growth since UETN assumed management



**39,117** classes held via UETN's Interactive Video Conferencing system

**384,825** K-20+ students and educators use UETN's LMS



**40,000+** unique pageviews of Preschool Pioneer

**20,000+** videos and other digital assets in eMedia



Technical Trainer Jami Gardner guides eighth-graders through "Breakout EDU," an activity to introduce youth to UtahFutures. One student remarks, "It's interesting because some of the things it shows me I didn't think of, but I'm thinking of them now."

# We secure ongoing funding for our work.

## UETN HELPS LOWER NET COST TO SITES

To lower the costs of connecting schools and rural healthcare providers, UETN aggressively applies for and receives reimbursements for broadband service to school and healthcare facilities through the FCC's Universal Service Fund's Federal [E-Rate](#) and [Rural Health Care \(RHC\)](#) programs. UETN owns about 2% of its broadband circuits, leasing the remaining 98% from private sector telecommunications firms selected through competitive procurement. As the leased circuits qualify for federal reimbursement, UETN brings millions of dollars to Utah that would otherwise go unclaimed. As of June 30, 2018, UETN received \$17.2 million in E-Rate funding, which amounted to nearly 34% of the station's \$49.5 million annual budget.

### Recognizing Beneficial Grant Funding

UETN leverages funding from the Corporation for Public Broadcasting (CPB), along with state funding, to support broadcasting and portions of other community services such as teaching and learning tools, [Utah's Online Library](#), the *Preschool Pioneer* website, viewer engagement activities, the *Utah Futures American Graduate* project and professional development training for teachers. In 2018 the CPB Community Service Grant amounted to 8.4% of UETN's budget.

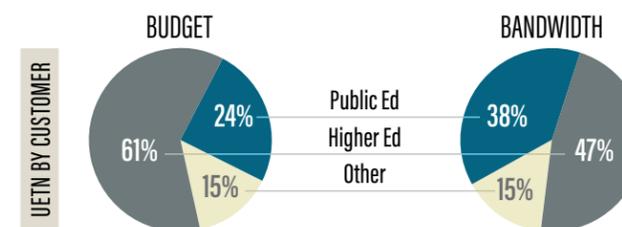
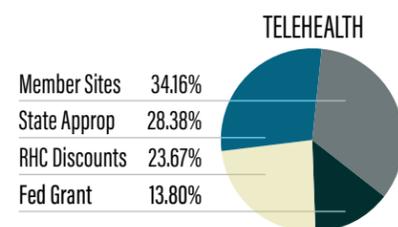
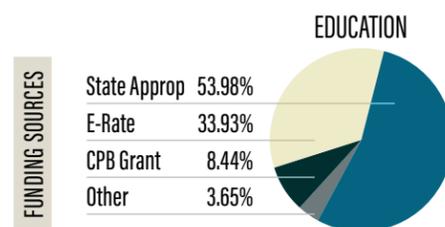
### Networking for Healthcare

[UETN's telehealth network](#) was awarded grant funding and designated as the region's Northwest Regional Telehealth Resource Center by the HRSA Federal Office of Rural Health Policy Office and the Office for the Advancement of Telehealth (OAT). In 2018, the center convened more than 150 participants from Alaska, Idaho, Montana, Oregon, Utah, Washington and Wyoming for a conference featuring breakthroughs in networking for healthcare. Telehealth saves Utahns money by reducing unnecessary transport, emergency room visits, hospital stays and duplication of diagnostic tests.

UETN's telehealth services include support for high-definition video conferencing that connects healthcare providers and patients across vast distances. Here, Media Services Specialist Jan McEwan tests a connection with Network and Security Engineer Rick Phinney.



UETN's Linda Lane and Melinda Brereton Talbot analyze an application for reimbursement through the Schools and Libraries Program of the Universal Service Fund, also known as E-Rate. UETN serves as Utah's E-Rate consortium lead, working year-round to apply for reimbursements and coordinate [the state's E-Rate Program](#), benefiting all Utahns.



**\$17.2 MILLION**  
in telecommunication  
funds recovered for  
Utah schools



# We provide excellent professional learning experiences.

## LEADERSHIP IN BLENDED & DIGITAL LEARNING CHANGES SCHOOL CULTURES

Used skillfully, technology can help educators engage a wider range of students. It also prepares learners to thrive in an economy that is increasingly dependent on a tech-savvy workforce as outlined in *Utah's Master Plan for Digital Teaching and Learning*. In partnership with the Utah State Board of Education (USBE), UETN administered *Leadership in Blended and Digital Learning (LBDL)*, a program that gives principals and superintendents hands-on experience with digital tools and best practices. Participants say the program has empowered them to serve as stronger advocates for effective integration of educational technology into their schools and communities.

### Delivering On-demand Insights for Educators

UETN's Professional Development team now offers two online series to help educators enhance teaching with tech: *PDTV*, which features ten-minute video interviews and how-tos, and *Homeroom*, an audio podcast that offers in-depth insights from education leaders.

### Celebrating the Launch of a Statewide LMS

In 2018, UETN extended licensing of Utah's learning management system (LMS), Canvas, to include all public K-12 schools along with Utah's system of technical colleges and higher education. The move provides access to this leading platform at considerable savings to schools. UETN hosted the Utah Canvas Summit in October for current and new users to learn how to best use the LMS.

### Boosting Ed Tech Capabilities with Endorsement Program

Working with Utah's educator licensing department, UETN offers a fully online technology endorsement that licensed educators can add to their credentials. The program has reached more than 716 educators, resulting in significant adoption of technology for improved instruction across the state.

### Connecting the Community to Station Resources

UETN hosted the [2018 Technical Summit](#) and co-sponsored the statewide Utah Coalition for Educational Technology (UCET) conference, which attracted a record-setting 1,800+ educators. The station also participated in dozens of partner events including StepUp Utah financial aid nights, Pathways to Professions, the Uintah Basin Career Summits and more.



The online series PDTV spotlights K-12 education success stories and news. In this episode, UETN's Michael Hakkarinen interviews a participant in the LBDL program.



Using virtual reality goggles, a student travels to a space station, dives under the sea and even travels through time to learn about World War II—all without leaving the classroom. UETN's Professional Development staff help teachers level up their skills with courses that emphasize meaningful integration of technology to fuel learning.

14,185 Utah educators participated in 2,805 hours of UETN professional development



27,738 hours or 1,155 days of educational content on UETN's four 24/7 broadcast channels



40+ hours per week of K-12 educational programming



UETN overall bandwidth utilization of 98.8 Gbps connecting 1,113 schools



## Purpose



We connect people and technologies to improve education and healthcare in Utah.

## Initiatives



### NETWORK

We will administer a secure, advanced, and stable network.

Grow capacity > Anticipate and plan for demand > Manage security risk > Support HPC for research > Merge UEN and UTN infrastructure > Leverage peering

### APPLICATIONS

We will curate and support high quality resources and tools.

Align to core needs and standards > Support certificate and degree programs of our partners > Maximize cost savings through consortia > Improve accessibility > Foster telehealth adoption and deployment

### SUSTAINABILITY

We will secure ongoing funding for our work.

Be transparent and efficient > Maximize E-Rate and HealthCare Connect funds > Seek grants and partnerships > Leverage other state and national initiatives

### BROADCAST

We will extend programs and projects to benefit our community.

Manage FCC spectrum repack > Leverage the IP network, new technologies and applications > Produce new media > Engage with and amplify the work of community partners

### DEVELOPMENT

We will provide excellent professional learning experiences integral to the work of our stakeholders.

Support Canvas training > Develop telemedicine resources > Staff adequately to reduce waitlists > Increase support for school administrators, libraries and healthcare community > Serve as a regional telehealth resource and leader

## Values



*Service: open, honest, clear and respectful*

*Innovation: new ideas and creative solutions, a responsible risk-taking culture*

*Diversity: respect for all*

*Equity: fairness, impartiality, balance*

*Fiscal Responsibility: stewardship, public trust*

*Empowered Staff: opportunities for professional growth*

*Communication: seek input, give voice to staff and stakeholders*

*Safety: welfare, security, and well-being of staff and constituents*

## Performance Indicators



1. 100% of sites connected at sufficient capacity to meet need
2. Network uptime and availability at 99.9% or greater
3. # of videoconferencing classes
4. Increase in composite # of telehealth enabled activities
5. Website utilization metrics
6. \$ savings through consortia purchasing
7. # of PD courses and credit hours completed
8. Finances stable and sustainable
9. % of return on E-Rate and Rural Healthcare funds